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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/725,972	11/29/2000	Takatoshi Tomooka	JP9-1999-0239US1 (8728-45)	8972

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EXAMINER

WILSON, YOLANDA L

ART UNIT	PAPER NUMBER
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2113

DATE MAILED: 05/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/725,972

Applicant(s)

TOMOOKA ET AL.

Examiner

Yolanda Wilson

Art Unit

2113

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 20-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-11, 15-18 and 20 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 12, 21 and 23 is/are rejected.
- 7) ☒ Claim(s) 3, 4, 13, 14, 22, 24 and 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 3,4,13,14,22,24,25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Allowable Subject Matter

2. Claims 5-9,10-11,15-17,18,20 are allowed.

3. The following is a statement of reasons for the indication of allowable subject matter: The primary reason for the allowance of claims 5-9 is the inclusion of the limitation an interface for connecting the host system and the display to each other, wherein the interface has a first interface for executing a transfer of a large capacity of data from the host system to the display and a second interface for executing a transfer of a small capacity of data from the display to the host system which is not zero but smaller than the quantity of data transferred by the first interface

The primary reason for the allowance of claims 15-17 is the inclusion of the following limitation: notifying means for notifying information indicating a transfer error with respect to the image data received by the receiving means to the host system through a second interface transferring a smaller quantity of image data than the first interface.

The primary reason for the allowance of claims 10-11 is the inclusion of the limitation wherein the header includes information for identifying whether the packet indicates a re-transfer for transferring the image data again.

The primary reason for the allowance of claims 18,20 is the inclusion of the limitation wherein the transfer error notifying means comprises an identification information storing section for storing identification information of the image data which caused the transfer error and notifies the identification information stored in the identification information storing section to the host.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1,2,12 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacInnis et al. (US Publication Number 20040017398A1) in view of Ludtke et al. (US Publication Number 20020089517A1) in further view of Shinoda (US 5680322A). As appears in claim 1, MacInnis et al. discloses managing image data by the host system belonging to a window in accordance with a sub-area obtained by dividing a display area of the display for the window that is a display area in an image space of which the application is conscious; transferring the image data managed by the host system as a packet unit to the display via the interface wherein the packet unit comprises a header indicating that the packet unit corresponds to the window on page 3, paragraphs 0051-0054. The host system in MacInnis et al. is the set-top box, which controls the television display.

MacInnis et al. fails to explicitly state developing the image data transferred to the display via the interface in a panel memory of the display.

Ludtke et al. discloses this limitation on page 5, paragraph 0035, "When received by the display device the on-screen-display graphics data is loaded into an on-screen-display buffer at memory locations corresponding to the address values. At the display device, an embedded stream processor is preferably utilized to strip the header information from each packet and determine the appropriate memory location at which the data is to be stored."

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to develop the image data transferred to the display via the interface in a panel memory of the display. A person of ordinary skill in the art would have been motivated to develop the image data transferred to the display via the interface in a panel memory of the display because the memory located in the display determines where the data sent to the display is stored in memory.

MacInnis et al. and Ludtke et al. fail to explicitly state grasping conditions of a transfer error in the transferred image data in a unit of the window and grasping by the host system the conditions grasped through the display.

Shinoda discloses this limitation in column 2, lines 51-61, "The receiving side corrects or detects errors in the received transmission bit string and determines whether the effect of the detected error upon the picture or image quality is larger than a predetermined criterion... a retransmission request for the data containing errors in the image coded but [bit] string is transmitted to the transmitting side. When a

retransmission request is transmitted from the receiving side, the transmitting side retransmits the data according the retransmission request to the receiving side."

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to grasp conditions of a transfer error in the transferred image data in a unit of the window and have the host system grasp the conditions grasped through the display. A person of ordinary skill in the art would have been motivated to grasp conditions of a transfer error in the transferred image data in a unit of the window and have the host system grasp the conditions grasped through the display because transfer errors need to be detected when data is transferred over an interface from one device to another device and the host system needs to notified for recovery means.

6. As per claim 2, MacInnis et al. and Ludtke et al. fail to explicitly state a re-transfer of the image data from the host system to the display through the interface is executed based on the conditions of the transfer error grasped by the host system.

Shinoda discloses this limitation in column 2, lines 51-61, "The receiving side corrects or detects errors in the received transmission bit string and determines whether the effect of the detected error upon the picture or image quality is larger than a predetermined criterion... a retransmission request for the data containing errors in the image coded but [bit] string is transmitted to the transmitting side. When a retransmission request is transmitted from the receiving side, the transmitting side retransmits the data according the retransmission request to the receiving side."

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a re-transfer of the image data from the host system to the display through the interface is executed based on the conditions of the transfer error grasped by the host system. A person of ordinary skill in the art would have been motivated to have a re-transfer of the image data from the host system to the display through the interface is executed based on the conditions of the transfer error grasped by the host system because re-transferring the data based on the error condition grasped by the host system is a way to stop the degradation of image quality. Shinoda discloses in column 2, lines 63-67 – column 3, lines 1-2.

7. As per claim 12, MacInnis et al. discloses image data transfer means for transferring image data to the display after packetizing the image data into a packet unit corresponding to a window that is a display area in an image space of which the application is conscious wherein the packet unit comprises a header indicating that the packet unit corresponds to the window on page 3, paragraphs 0051-0054. The host system in MacInnis et al. is the set-top box, which controls the television display.

MacInnis et al. and Ludtke et al. fail to explicitly error condition receiving means for receiving error conditions with reference to the image data transferred to the display by the image data transfer means in the form of a predetermined collective unit from the display.

Shinoda discloses this limitation in column 8, lines 13-26.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have an error condition receiving means for receiving

error conditions with reference to the image data transferred to the display by the image data transfer means in the form of a predetermined collective unit from the display. A person of ordinary skill in the art would have been motivated to have an error condition receiving means for receiving error conditions with reference to the image data transferred to the display by the image data transfer means in the form of a predetermined collective unit from the display because the error condition receiving means receives the error information for the errors that have been detected in the data transferred to the display.

8. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over MacInnis et al. in view of Maeda et al. (USPN 6014765A). As appears in claim 23, MacInnis et al. discloses a header portion including information indicating which window the packet belongs to, a body portion including image data belonging to the sub area for the display and information relating to an address of the sub area on page 10, paragraphs 0134-0135.

MacInnis et al. fails to explicitly state a footer portion including information for confirming a transfer error.

Maeda et al. discloses this limitation in column 21, lines 51-55.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a footer portion including information for confirming a transfer error. A person of ordinary skill in the art would have been motivated to have a footer portion including information for confirming a transfer error

because the information contained in the footer portion will help to determine if an error has occurred after transmission.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claim 21 rejected under 35 U.S.C. 102(e) as being anticipated by MacInnis et al.

As appears in claim 21, MacInnis et al. discloses a variable-length packet data for transferring image data obtained by dividing an image space, of which the application is conscious, into a predetermined unit, the image data being packetized on page 3, paragraphs 0051-0054. MacInnis et al. discloses a control line for indicating a valid packet period in the variable-length packet data on page 12, paragraph 0150.

Response to Arguments

11. Applicant's arguments with respect to claims 1,2,12,21,23 have been considered but are moot in view of the new ground(s) of rejection. Applicant's arguments located in the Remarks section of the amendment are in regard to claims 1,2,4,10,11,12,14,18,21, 23 with respect to Morimoto et al., Shinoda, and Maeda. The primary reference used for those claims, Morimoto et al. have been replaced with a different reference as indicated

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in the rejections of claims 1,2,12,21, and 23 above. However, Shinoda and Maeda are still used as secondary references. Applicant argued "Shinoda does not teach or suggest that the packet unit comprises a header indicating that the packet unit corresponds to the window, as claimed in claims 1 and 12. Shinoda teaches MPEG image data...MPEG implements frames, wherein a header information of each frame indicates the type of picture of each frame...An indication of a picture type does not indicate that the packet unit corresponds to the window..."

12. Examiner respectfully disagrees with Applicant. The deficiency Shinoda cures is that when data transferred from one place to another it would be obvious to determine if there are any errors that occur during the transfer of the data. MacInnis et al. discloses transferring the graphics data as packets that define images that are to be displayed on a display. Shinoda emphasizes the error checking after the transfer of the data, regardless of the type of data being transferred.

13. Applicant's arguments concerning Maeda are moot because MacInnis et al. does disclose a header portion that determines which window the data is associated with and Maeda cures the deficiency of having a footer portion including information for confirming a transfer error as disclosed in the rejection above of claim 23.

14. Applicant's amending of claims 10,11, and 18-20 placed those claims in condition of allowance.

Conclusion


15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yolanda Wilson whose telephone number is (703) 305-3298. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (703) 305-9713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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